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IT PROJECT PORTFOLIO MANAGEMENT – A MATTER OF ORGANIZATIONAL CULTURE?

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Abstract

In a qualitative research approach, an interpretive case study has been conducted. 26 experts from a large financial service provider of the cooperative banking sector were interviewed. The impact of organizational culture on the management of an organization's IT project portfolio was subject to inquiry. We have identified three core dimensions of the organizational culture of the analyzed bank: 'safeguarding culture', 'consensus orientation', and 'sustainability orientation'. These three central cultural elements influenced the company's project portfolio management in a way that the portfolio of projects was oversized, resulting in a shortage of key IT resources in individual projects. As a cultural issue, the organization placed more emphasis on a sustainable, long-term oriented, effective project portfolio, rather than on efficient single IT project performance.

Keywords: IT Project Portfolio Management, Case Study, Cooperative Banking, Organizational Culture.

1 INTRODUCTION

Large companies perform a magnitude of projects in order to implement organizational change and launch new products at any time, since business environments change at a growing speed (Blichfeldt et al. 2008). Managing the multitude of projects that a company plans to conduct in the future, or that it is undertaking at the moment, is the central challenge of project portfolio management (PPM). While managing single projects within given timeframe, budget, and requirements boundaries focuses primarily on doing things right, the idea of portfolio management is doing the right things, i.e., selecting the right projects (Elonen et al. 2003). In recent years, the research community of (general) project management has brought the management of project portfolios into focus (Engwall 2003), since project risks should also be tackled from a more comprehensive portfolio view. This applies particularly in the IT project domain (McFarlan 1981). Literature on project portfolio management mainly focuses on new product development projects (Cooper et al. 2001), whereas research on IT project portfolios is scarce (Elonen et al. 2003). Especially, the efficiency of project portfolio management, or multi-project management, has only rarely been studied (Martinsuo et al. 2007). While former studies on project portfolio management have focused on tools and techniques how PPM should be carried out, later works shift their attention towards the decision processes and investigate “how and why companies do PPM in certain ways” (Blichfeldt et al. 2008), while research on that topic is still rare (Dawidson 2006).

Recent articles found that successful IT project management is context-specific (Chua et al. 2009). The organizational environment in which IT projects take place have been examined starting in the mid 1970ies (Lucas 1975). Environmental risks which endanger IT projects can be diverse, but are often overlooked by project management (Doherty et al. 1998). Prior literature shows that organizational issues resulting from the culture and/or the structure of an organization can have an impact on risks in system development projects (Doherty et al. 2003). Recent studies even show that “organizational risks appear to overshadow many other risks, and that all risks might be ultimately construed as organizational risks” (Warkentin et al. 2009, p. 20). Furthermore, these authors call for additional studies, especially in different ‘organizational culture settings’ to investigate the nature and impact of organizational risks on IT projects. Cultural influences on the outcome of projects were subject to a number of studies (Shore 2008). However, to the best of our knowledge, a study on the influence of organizational culture on IT project portfolio management is still missing in the literature.

Practitioners highly value IT project portfolio management, as shown in a recent study. 78% of 130 surveyed senior executives, the majority of them CIOs, are either using or planning to use portfolio management (Jeffery et al. 2003). Different organizational contexts have been shown to influence project portfolio management, including internal dynamics, governance types, and geographical locations, subsequently demanding for “further studies addressing the contextuality of portfolio management” (Müller et al. 2008, p. 39). Situational contingencies of portfolio management practices adoption are crucial, but the number of articles on this topic is very limited (Blomquist et al. 2006).

The information technology function in organizations has moved from IT application development and running the company’s data center towards handling, and even driving IT-enabled change (De Reyck et al. 2005). In line with existing literature (Hidding et al. 2009), we argue that within IT-intensive industries, such as the financial services industry, which is the focus domain of this paper, all projects that an organization undertake are ultimately IT projects. The reason for this is that each business process and every offered product/service is based on and generated through information technology. Therefore, we use the terms ‘project’ and ‘IT project’ interchangeably in this paper. Also, the term ‘portfolio’ is used synonymously to ‘project portfolio’. The level of analysis in this paper is the (IT) project portfolio level within an organization.

To explore the organizational culture’s influence on IT project portfolio management, we conducted an exploratory case study in the financial services industry. We were invited to analyze a selection of the current project portfolio from the IT department of a large European bank from the cooperative banking sector. This setting makes our case study revelatory in nature (Yin 1994), as a case study on

this topic in the cooperative banking sector has never been accessible to science before. Our research question is:

Is the management of the IT project portfolio of an organization in the financial service industry influenced by the organizational culture, and if so, how is it influenced?

2 METHODOLOGY

We conducted an interpretive qualitative case study (Walsham 2006) that was informed by analysis techniques offered by the Grounded Theory Methodology (GTM). We intended to build theory that is rooted in and relevant for the studied field (Glaser et al. 1967). Grounded Theory is not a theory itself, but rather a technique to discover abstract theories or theoretical frameworks from (mostly qualitative) data (Charmaz 2006). The ‘generalizable’ theory emerges from the collected data (Eisenhardt 1989), and is therefore grounded in the data. No preconceived hypothesis are tested, instead, topics, concepts, and categories appear during the data collection and data analysis phases. Theory-building instead of theory-testing approaches are most appropriate in under-researched areas (Glaser 1992).

The evolution of GTM has undergone two subtly distinct courses in recent years (Glaser 1992; Strauss et al. 1990). We adopted the Glaserian perspective, since we found this is more closely linked to the original formulation of GTM (Glaser et al. 1967). Other than the Straussian camp, Glaser places more emphasis on the *emergent* nature of the theory, neglecting any preconceived ideas from the extant literature of a specific area (Glaser et al. 2004). Therefore, we started our research without predefined hypothesis and no clear research question at hand.

We were invited to investigate the IT project portfolio of the bank and its management practices. We selected this company as the field site for our case study because research in this institutional setting – a cooperative environment – is scarce. The purpose of the study was to explore how risks of IT projects are managed in the particular cooperative banking context. However, the research question and overall orientation of this paper, focusing on portfolio management in particular, only emerged after the first data were collected and analyzed. Initially, the in-depth investigation of IT project portfolio management was not specified as the primary research objective. This procedure – i.e., letting the researchers being guided by the phenomena that occur during the course of the investigation – is in line with the foremost principle of GTM: ‘the research problem and its delimitation are *discovered*’ (Glaser et al. 2004).

We conducted 25 semi-structured expert interviews, interviewing 26 people in total, including program managers, project managers, sub-project managers, members of the audit department, and the leader of the PMO office. The project managers came from both the IT department as well as business departments. The data collection phase started in July 2009 and ended in November of the same year. The sample size of 26 interviewees was chosen according to the criterion of “theoretical saturation”, meaning that the last interviews we conducted only marginally contributed new insights to our investigation (Glaser et al. 1967). We selected our interview partners along several dimensions to enable an interpretation of the studied phenomena from different angles. All interviews were conducted by two researchers and were tape-recorded. After the interviews, the perceptions of the processes at work were immediately discussed between the researchers, serving for triangulation purposes. Also, discussions of preliminary findings with the interview partners took place at various occasions after the data collection period. This helped us to clarify meanings and context information, and to test whether our ideas would match with the real life experiences of the practitioners.

The audio files from the interviews were transcribed and coded line by line. At this stage, the researchers allowed the data to ‘speak for itself’ (Glaser et al. 1967), when the first concepts were identified. Only in the second stage, the selective coding phase, existing literature was used for further triangulation. Prior research findings served as additional data points. A comparison with existing literature from the IT project risk management domain, as well as the domains of organizational culture and project portfolio management, helped in refining emerging concepts and establishing categories of data (e.g., different categories of organizational culture). Besides the interviews, secondary data such as presentations, project portfolio planning documentation, and other internal

documentations were used to guide the sense-making process and to triangulate evidence from the interviewees. The respective next interviewees after each interview session were selected according to references and suggestions of the current interview partners, as well as considerations regarding research topics of relevance, thereby following the guidelines of theoretical sampling. The findings of this paper represent ‘generalizable patterns’ that emerged out of this single exploratory case study (Langley 1999).

3 LITERATURE REVIEW

The subsequent literature review starts with a short introduction to the cooperative idea in general and its layout in the banking industry, where scientific research is scarce. This is followed by an overview over the literature on organizational culture in general and in IT contexts specifically. Lastly, studies on project portfolio management are presented.

3.1 Cooperative banking sector

Research on the cooperative banking sector is limited, although in some countries, cooperative banks exhibit a considerable market share of the financial service sector in the national economy (Koetter et al. 2004). The historic development of the cooperative idea can be traced back to the 19th century, when rural credit cooperatives emerged in Germany. The philosophical foundations upon which the cooperative idea is based involve two assumptions about human behavior: first, people desire personal relationships over impersonal business conduct, and second, people prefer to cooperate with others and support each other mutually, rather than competing with others (Taylor 2007). Details on the nature of cooperative banking and the organizational context of our case study will be provided in the case description section.

The idea of cooperative banking has spread around in many countries, including the United States, Canada, and Latin America (Dublin 1966). In India, a social experiment was initiated in the 1960s. As a result, Indian cooperative banks were established in order to ensure that the agricultural sector and small and medium enterprises, especially in rural areas, had equal chances to get credit approvals (Kamat 2007). The core area for cooperative banking, however, remains in Europe (Juvin 2005). Researchers have focused attention on efficiency issues in a comparative analysis between the cooperative sector and the public and private banking sectors in Spain, to give an example (Gual et al. 1999). Other areas of interest, also from a Spanish perspective, included the implications of globalization on the cooperative banking sector (Carrasco 2004). Comparative analysis between different banking groups have also been conducted with a focus on the German banking environment (Weiß 2005). Corporate governance characteristics of the cooperative banking sector have been analyzed in Austria, concluding that firm performance declines as the number of cooperative members increases, since this represents a greater separation of ownership of a bank and its control (Gorton et al. 1999). In summary, the number of articles focusing on cooperative banking is limited. Studies investigating the use and management of IT in this sector, or even the management of an IT project portfolio within this context, are not among them.

3.2 Organizational culture

Among the multitude of definitions of what culture is, one common aspect is that basic assumptions (of a group of individuals who form a ‘cultural unit’) are formed over time, as members (of this group, which could be an organization) develop strategies to solve problems and pass along these strategies to new associates of this group (Van Maanen et al. 1985). By ‘organizational culture’, we mean individually respected conditions within an organization, its collective values, and norms. Schein presents a three level model of culture (Schein 1985). At the first level are the mentioned basic assumptions about reality and truth, which form the core of culture. These assumptions are used by people to make sense of the world surrounding them, and form the basis of group behavior (Leidner et al. 2006). Values of people represent the second level of culture, which explain why people behave

the way they do (Schein 1985). Referring to organizational culture, corporate values can form the basis for appropriate behavior within the company. Artifacts are at the third level of culture, in which culture manifests itself. Language, as the most significant expression of a group's culture, and other audio-visual manifestations of culture such as art, rituals, and even technology, can be interpreted as cultural artifacts (Pettigrew 1979).

Culture at different levels, including national, organizational, and group levels, influences the use and implementation of IT (Leidner et al. 2006). Meanwhile, a substantive body of knowledge exists in the area of cross-cultural differences and on national levels of culture. Culture's effects on IT development and usage have been investigated. However, research on organizational culture and the organizational context in which IT projects are carried out, is still scarce. In a review on culture in information systems research, Leidner and Kayworth identified only very few studies of an organizational culture's influence on IT strategies (Leidner et al. 2006). They focus, e.g., on an organization's top executive level 'planning culture', which facilitates strategic information system investments (Grover et al. 1998). An innovative organizational culture's tendency to facilitate clear and focused IT strategies was the main contribution of another one of the three identified works (Kanungo et al. 2001). Newer research has investigated the relationship between organizational culture and the deployment of systems development methodologies, concluding that IS developers of companies with a more hierarchical culture primarily adopt secure, ordered, and routine oriented development approaches (Livari et al. 2007). Likewise, only a few studies have been investigating the effects of culture on single IT project management, all of them demanding more research in this area (Keil et al. 2000; Tan et al. 2003). In general, research on culture and organizational culture, exploring its impact on IT governance areas, such as IT project portfolio planning, is very limited (Weill 2004).

3.3 Project portfolio management

Portfolio theory has been introduced in 1952, focusing on financial investments (Markowitz 1952). The intention of this original formulation of portfolio theory was to determine the particular mix of investments to maximize returns at a given level of risk for the investor (De Reyck et al. 2005). Three decades later, portfolio theory was first adapted to IT projects, paving the way for modern project portfolio management (PPM) literature (McFarlan 1981). Most articles on portfolio management of projects were published from the mid 1990s onwards. Our work is based on the definition of a project portfolio as a "group of projects that compete for scarce resources and are conducted under the sponsorship or management of a particular organization" (Archer et al. 1999). The main objectives of portfolio management, as reflected in the literature, are maximization of business value of the portfolio, aligning the project portfolio to the company's strategy, and finding the right balance within the portfolio in order to understand trade-offs in objectives (De Reyck et al. 2005; Elonen et al. 2003). Problems caused by inadequate portfolio management were identified in the area of new product development projects (Cooper et al. 2001), as well as cross-organization project management (Combe 1999). Key elements of PPM have been discussed, among them – in the IT project application area widely uncommon – financial analysis (Jeffery et al. 2003), risk analysis (McFarlan 1981), and others. Most relevant to our case study are the works on interdependencies between projects (Thorp 1999), elaborating on the potential of PPM to overcome or reduce competition for scarce resources between projects within the portfolio. Adding to this, different types of interdependencies were identified: sequential dependencies, overlapping outcomes, and change bottlenecks (De Reyck et al. 2005). Other relevant works focus on prioritization between projects to ensure matching a company's overall business strategy and balancing projects to meet these strategic goals adequately (Goldman 1999). One of the key findings of recent literature on PPM is that companies generally start more projects than they have resources for (Cooper et al. 1999). Reasons for this phenomenon are manifold. While past research has focused on the explanation of this 'resource allocation syndrome' as a planning and scheduling issue, more recent findings suggest that there is far more to it than just this simplistic view. Resource allocation to projects which happen successively or simultaneously is more like a "process of politics, horse trading, interpretation, and sense making that is far more complex than traditionally has been discussed" (Engwall et al. 2003, p. 408). Accordingly, these researchers call for more empirical research to highlight the profound, organizational problems of PPM. There is consensus

among researchers that any investigation of PPM needs to take into account the situational contingencies (Blomquist et al. 2006). However, empirical studies on these organizational influencing factors is still scarce (Müller et al. 2008).

4 CASE DESCRIPTION

We were given the chance to investigate how risks in a number of IT projects are managed at a large financial institution in Europe. Precisely, the investigated company is one of the major banks within a widespread cooperative banking network. It serves as a ‘central bank’ that offers IT solutions, all kinds of complex banking products, and support to the so called ‘tier 1 banks’ or ‘primary banks’ – the customers and owners of the central cooperative bank. The latter, a bank with a multi-billion Euro balance sheet, runs corporate and investment banking as well as transaction banking and operates as the appropriate financial services provider for key accounts. It serves, for example, as the leading underwriter for corporate loans, which in many cases would be too big for a single primary cooperative bank. Those smaller banks, which operate all over the country within clearly specified geographic regions, are owned by their members, the ‘associates’. Each member can only have a maximum share of ownership stakes, which is a rather small one in monetary terms. This way, the primary cooperative banks make sure that no single associate can have more influence than any other in terms of co-determination of business strategies, payments of dividends, and business conduct in general. All primary banks jointly own the central cooperative bank and other specialized financial institutions of the cooperative banking sector, as well as the two major data processing centers. Specialized banking products, like certificates and other derivatives, are developed and marketed by the central cooperative bank and several other narrowly focused financial service providers – one could call them ‘tier 2 banks’. Their products are then sold to end-customers through primary banks in their respective regions. In total, several hundred of these tier-1-banks exist. A simplified diagram of the cooperative banking sector is presented in figure 1. As shown, the small primary banks are at the same time owners and customers of the specialized banks. The central cooperative bank, where we conducted our case study, is by far the largest company within the cooperative banking network.

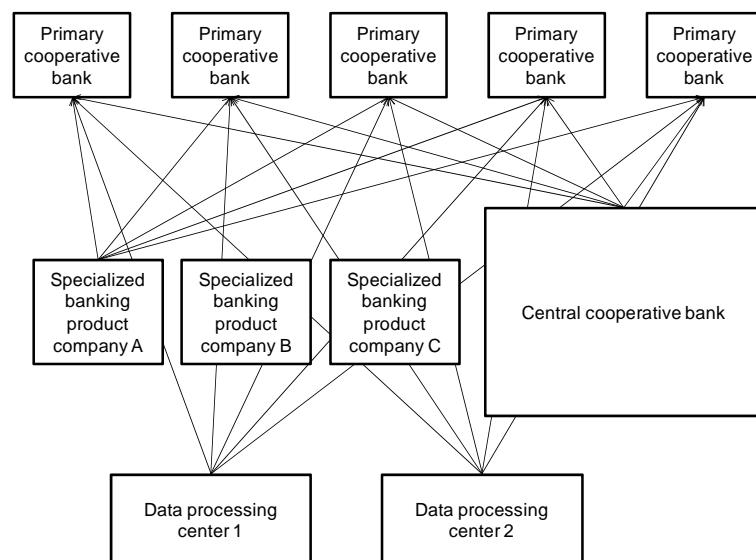


Figure 1. *Simplified structure of the cooperative banking network*

The organizational culture of the cooperative banking sector holds ‘integrity’, ‘trust’, and ‘cooperation’ as its core values. Organizations in the financial services industry are characterized by their heavy use of IT. Almost each business process is based on information technology, as well as the banking products themselves. Additionally, market shifts and new regulatory requirements are very

common. Accordingly, the analyzed bank holds a large portfolio of several dozens of IT projects, ranging in budgetary size from several hundred thousand Euros to over 100 million Euros.

All but only a few very small technical improvement projects are business driven projects that touch IT to a greater or lesser extent. This is in line with recent findings from the literature (Hidding et al. 2009) and can be explained by the immanent nature of IT in the financial service industry. Each project of this bank has two project leaders, one from the commissioning business department, the other one from the IT department. This, in turn, reflects the definition of projects as one-of-a-kind endeavors, having the goal to create something new or to change existing structures. Regarding the financial services industry, projects hereby touch existing business and IT processes at the same time.

5 CASE ANALYSIS

In the following, we present the key themes that emerged from our case analysis. The first theme that emerged is related to organizational culture which is shown to be an important context factor. The second theme regards project portfolio management, which we identified as an important driver for IT project management. We explain each theme and the linkages between them in the following.

5.1 Key Organizational Culture Theme: Cooperative Culture

The corporate culture of the company was heavily influenced by the context of the cooperative banking sector. The strategic guideline of the company consisted of values like integrity, trust, and cooperation. These organizational cultural guidelines manifest themselves in individual behavior, as the following examples will illustrate. Three major cultural attributes could be identified: a certain ‘safeguarding culture’, ‘consensus orientation’, and ‘sustainability orientation’.

Generally, the corporate culture could be described as rather soft in terms of attitude of individual conduct. This, however, also implicated a kind of ‘safeguarding culture’, in the sense that ensuring not to ‘forget’ anybody among the colleagues in a given situation was one of the most important things to take care for individuals. Members of a project team, for example, always had to be asked for their accordance, in order not to ‘tread on someone’s toes’. A statement of a project leader from a business department illustrates this:

“Whenever decisions become transparent, when general approval is obtained ... [then you will succeed], but you must not apply ‘sledge-hammer methods’, because that certainly will not work here.”

Safeguarding against possible interference – many stakeholders wanted to be heard and wanted to be asked for their agreement – was a key feature of the corporate culture. A similar view has been described by another project manager from a business department. Working in this organizational context and culture means to make sure at all times not to offend anybody by deliberately or unintentionally not fully seeking accordance with stakeholders. He formulated:

“You have to try not to announce any ‘not-harmonized’ issues, otherwise it won’t work. You need to seek partnership, don’t ‘pull strings in the hierarchy’, because you know where that would end up. We never do that. We always seek the cooperative approach. Explore possibilities of working together, create synergies, and make them transparent.”

This quotation demonstrates both the more negative perception of safeguarding against cultural risks, and at the same time also the positive view of the cooperative approach – a culture of mutual respect, understanding, and assistance. The overall goal of the bank is to support the cooperative banking network in any business objective. The ways how to reach this goal are cooperation, transparency of intentions, and identification of synergies in business conduct among partners in the cooperative network. Therefore, seeking consensus is very highly valued, not only at the project level, but also at the portfolio level. One project manager provided details on this ‘consensus orientation’ of employees:

“It’s all very consensus-driven. I know project management from other companies, where it’s straight forward: there’s a clear project goal, and the project manager’s duty is to accomplish this. I don’t

have this role here. At this bank, I'm more like a 'consensus-establisher'. My primary task is to get everybody on board. And that's the more important part than staying within budget and on schedule."

On a strategic level, where portfolio planning takes place, this company culture can be observed, as well. An interviewee working at the corporate strategic development department explained the core principles of the organizational culture, which emphasizes solidarity among colleagues and between companies within the cooperative network, as follows:

"That's the cooperative principle, we want everything together. Yes, we want high quality, we want to reach quite some things, but not at the expense of others. That's the way people are here, somehow selected or educated by the bank. That's what makes up the culture in this bank, and that makes cooperation very easy."

The notion of solidarity between companies and individuals within the cooperative sector has been further documented by the head of the project manager pool, involved also in portfolio planning of the bank:

"It's a correct observation that our culture is a consensus oriented one. That's part of the identity of the cooperative network. It has an inner logic and relates to the principle of solidarity and our mutual alliance model, our cooperative business model. That's the opposite of other business concepts, where there are managerial authorities. Those structures, we do not have them. Instead, it is the idea that different interests can be proposed, and as many win-win situations as possible are created, since we have many parties involved, which makes the model so complex."

The most important finding that emerged from our analysis is the influence that the above explained organizational culture has on IT projects, in particular IT project portfolio planning. We explain in the following, how organizational culture influences the management of the project portfolio and how this influence changes goal orientation in project portfolio management (e.g., solidarity is seen as more important than management efficiency).

5.2 The Impact of the Organizational Culture on the Management of the Project Portfolio

The overall project portfolio of the bank consisted of dozens of projects of different sizes, while almost all of them jointly affected one of the business departments and the IT department. Portfolio planning at the bank took place annually, whereas the executive board only set the general strategic orientation of the bank – towards serving in the best possible way for the cooperative network – and the overall budget for the project portfolio. The selection of which projects would be carried out was up to the division directors, located directly beneath the executive board in the corporate hierarchy. That means that the choice of whether a project should be carried out in the upcoming year is not strategically derived, and there is no clear priority of projects. The only constraint of the decisions which projects are to be started is the limiting overall budget for all projects taken together. The project leader of one of the largest IT projects commented on this issue as follows:

"As you can imagine, in an organization of this size, business departments are planning lots of projects, because they want to have many things. Almost all of these projects are going to be initiated, because they somehow manage to get through their projects in the end. This results in a shortage of resources [i.e., human resources] because you can't do everything with external resources. We do have budgetary limits. That, in turn, leads to the delays of most of the projects we have..."

The reason for the top management's approach not to determine which projects should be carried out, but rather to leave it to negotiations at the divisional heads' meetings for project portfolio management, called the 'Project Management Board' (PMB), can be traced to the organizational culture. The consensus orientation, emphasizing mutual agreements over top-down decisions, plays a major role here. One project manager from a business department commented on this:

"There's an imperative will for consensus. Decisions must be taken unanimously. (...) At the PMB, one single veto of a divisional head is enough for the denial of a change request for a project, to give an example."

The composition of the project portfolio, which does not make a difference between rare 'IT-only projects' and those business-driven projects with a varying degree of IT stakes, is negotiated between coequal managers without a superior person in the hierarchy, since the executive board of the company does not decide upon the project portfolio itself or its prioritization. Therefore, it can be interpreted as the organizational intention that division leaders compete for resources and that they first and foremost represent the interests of their respective divisions. Since every manager at the PMB can 'bring down' the other division manager's desired (IT) projects, there's a strong constraint for mutual agreement, and hence a tendency to grant too many projects for the limited number of employees dedicated to work for these projects. The head of the 'project leader pool' group explained:

"By means of the PMB, barters, or counter-trades become possible. 'If you help me, I will help you'. It's kind of an exchange, like a market. Negotiations happen there. And why not, it's not silly at all. People say 'OK, let's get together', and we'll see how we can jointly reach the goal."

The notion of 'joint conduct' is a typical expression of the organizational culture, where values like trust, integrity, and transparency are emphasized. It also means, however, that some decisions are simply not taken, e.g., decisions not to start a project. In this case, it can happen that all projects of a division's 'wish list' will be initiated. The only imperative constraint of the 'project worthiness' of an idea is that the economic benefits must justify the efforts, or in other words: projects have to prove their positive return on investments.

There were three different ways for a project to get approved. First, projects may emerge out of ideas of different business departments, groups, or project teams. All these initial concepts that seem reasonable for those who devised these schemes were being assembled in a so called 'topic archive'. These bottom-up ideas were then presented to the PMB each year, in order to negotiate the list of projects that should be conducted the respective upcoming year. In addition to this list, strategic initiatives of significant relevance either to the bank as a whole or even to the whole network of the cooperative banking sector, were then being added. This happened mostly in a top-down manner, being initiated by the executive board of the bank or meetings of the top management of several companies of the network. The third source of project propositions are required business process changes due to regulatory obligations. Priority is granted to this kind of projects, followed by strategic top priority initiatives. The breakdown of the remaining projects, i.e., those from the topic archive, is subject to negotiation at the project management board. The executive board of the bank does not decide upon its prioritization. This specific arrangement of how project portfolio planning is conducted can be associated to the cooperative culture, since it allows room for finding the long-term oriented best solutions for all involved parties. This phase, the negotiation or 'bargaining' period, however, also represents the foundation for regularly 'over dimensioned' project portfolios, resulting in resource shortages for single (IT) projects.

Besides the possible implication of this cultural attitude to allow for too many projects being approved, another culturally induced effect is the tendency to postpone decisions in order to find a solution that serves everybody involved in the best possible way. One of the senior executives involved in strategic planning explained the organization's 'sustainability orientation', and why decision taking may take longer in a cooperative environment than in contexts with a simple top-down hierarchy:

"We have our company values, and yes it can happen that we say decisions that are sustainable [throughout all involved parties] are preferred over decisions that are not agreed and sustained. [...] We try to find preferably good and common solutions, even if this lengthens the process."

6 DISCUSSION AND CONCLUSION

Following our interpretive qualitative research design, the concepts of organizational culture and its effects on the overall project portfolio emerged. The focus of this paper was to investigate how organizational culture (e.g., norms, values, and rules) influences the composition and ongoing management of the company's IT project portfolio. As a short summary of our key contribution, we identified three dimensions of the organizational culture, i.e., 'safeguarding culture', 'consensus orientation', and 'sustainability orientation', which pave the way for an oversized IT project portfolio.

Too many projects are granted by the division heads, because no division wants to refuse another division's desired projects. Even though there is room for negotiating and discussing priorities at the project management board level, there are no definite decisions from the executive board about how to derive a strategic prioritization of the overall (IT) project portfolio. The reason why more projects are initiated than realistically can be conducted at the same time can clearly be found in the organizational culture. A shortage of key human resources like specialized IT personnel has been identified as a result, which may lead to project delays. This, in turn, is characteristic to the organizational context in the cooperative banking network and its culture, since the bank places more emphasis on sustainable project outcomes, rather than on project performance. In other words, the bank prefers effectiveness of the project portfolio over efficiency of single IT projects.

Discussing the findings in the light of the extant literature on project portfolio management, we found evidence that companies generally start more projects than they have resources for, which is in line with former findings (Blichfeldt et al. 2008). Also, our results provide support for the formerly identified slight indications that portfolio management and the related decision making style is influenced by the type of product an organization creates (Müller et al. 2008). The managers in industries with tangible products tend to decide individualistically, whereas industries with intangible outcomes, such as the financial service industry, exhibit a tendency to use groups of managers to decide upon project portfolios (Blomquist et al. 2004). Former research has started to explain underlying mechanisms of the 'resource allocation syndrome' as the prime challenge for project portfolio management (Engwall et al. 2003). However, the explanation of this phenomenon by means of organizational culture influences is novel. Authors have demanded to "go beyond resource allocation and start addressing other deeply embedded features of an organization" (Engwall et al. 2003, p. 408) – this is where we make our contribution. We demonstrated how organizational culture has the potential to influence the composition and the management of a company's IT project portfolio. The detailed analysis of the underlying psychological, social, and economic mechanisms remains subject to future research. A further limitation of our work is that we conducted our case study at only one company from the cooperative banking sector. Future research might benefit from choosing a similar exploratory approach and by adopting our research findings in other organizational contexts.

References

- Archer, N.P., and Ghasemzadeh, F. "An integrated framework for project portfolio selection," *International Journal of Project Management* (17:4) 1999, pp 207-216.
- Blichfeldt, B.S., and Eskerod, P. "Project portfolio management - There's more to it than what management enacts," *International Journal of Project Management* (26) 2008, pp 357-365.
- Blomquist, T., and Müller, R. "Needs and prerequisites for project portfolio management," in: *PMI Central Sweden Chapter Meeting*, Stockholm, Sweden, 2004.
- Blomquist, T., and Müller, R. "Practices, Roles, and Responsibilities of Middle Managers in Program and Portfolio Management," *Project Management Journal* (37:1) 2006, pp 52-66.
- Carrasco, I. "The Global Financial Environment and Spanish Cooperative Banking," *International Advances in Economic Research* (10:4) 2004, pp 265-272.
- Charmaz, K. *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis* Sage, London, 2006.
- Chua, C.E.H., and Lim, W.K. "The Role of IS Project Critical Success Factors: a Relevatory Case," Thirtieth International Conference on Information Systems, Phoenix, Arizona, USA, 2009.
- Combe, M.W. (ed.) *Project prioritisation in a large functional organization*. Center for Business Practices, West Chester, PA, USA, 1999.
- Cooper, R., Edgett, S., and Kleinschmidt, E. "New product portfolio management: practices and performance," *Journal of Product Innovation Management* (16:3) 1999, pp 333-351.
- Cooper, R., Edgett, S., and Kleinschmidt, E. *Portfolio management for new products* Basic Books, New York, 2001.

- Dawidson, O. *Project portfolio management - an organising perspective* Department of Technology Management and Economics Operations Management and Work Organisation, Chalmers University of Technology, Gothenburg, Sweden, 2006.
- De Reyck, B., Y., G.-C., Lockett, M., Calderini, S.R., Moura, M., and Sloper, A. "The impact of project portfolio management on information technology projects," *International Journal of Project Management* (23) 2005, pp 524-537.
- Doherty, N., and King, M. "The Consideration of Organisational Issues during the Systems Development Process: An Empirical Analysis," *Behaviour & Information Technology* (17:1) 1998, pp 41-51.
- Doherty, N., and King, M. "From Technical to Socio-technical Change: Tackling the Human and Organizational Aspects of Systems Development Projects," *European Journal of Information Systems* (14) 2003, pp 1-5.
- Dublin, J. *Credit Unions: Theory and Practice* Wayne State University Press, Detroit, 1966.
- Eisenhardt, K.M. "Building Theories from Case Study Research," *Academy of Management Review* (14:4) 1989, pp 532-550.
- Elonen, S., and Artto, K.A. "Problems in managing internal development projects in multi-project environments," *International Journal of Project Management* (21) 2003, pp 395-402.
- Engwall, M. "No project is an island: Linking projects to history and context," *Research Policy* (32) 2003, pp 789-808.
- Engwall, M., and Jerbrant, A. "The resource allocation syndrome: The prime challenge of multi-project management?," *International Journal of Project Management* (21) 2003, pp 403-409.
- Glaser, B.G. *Basics of Grounded Theory Analysis* Sociology Press, Mill Valley, 1992.
- Glaser, B.G., and Holton, J. "Remodeling Grounded Theory," *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*.
- Glaser, B.G., and Strauss, A.L. *The Discovery of Grounded Theory: Strategies for Qualitative Research* Aldine Publishing Company, Chicago, USA, 1967.
- Goldman, C. "Align drive - expert advice," *CIO Magazine* (5:January) 1999.
- Gorton, G., and Schmid, F. "Corporate Governance, Ownership Dispersion and Efficiency: Empirical Evidence from Austrian Cooperative Banking," *Journal of Corporate Finance* (5:2) 1999, pp 119-140.
- Grover, V., Teng, J.T.C., and Fiedler, K.D. "IS Investment Priorities in Contemporary Organizations," *Communications of the ACM* (41:2) 1998, pp 40-48.
- Gual, A.M., and Clemente, I.M. "Inefficiency in the Spanish Cooperative Banking Sector," *Annals of Public and Cooperative Economics* (70:4) 1999, pp 621-637.
- Hidding, G., and Nicholas, J. "Reducing I.T. Project Management Failures: A Research Proposal," in: *42nd Hawaii International Conference on System Sciences*, Big Island, Hawaii, USA, 2009.
- Jeffery, M., and Leliveld, I. "Best practices in IT portfolio management," *Sloan Management Review* (45) 2003.
- Juvin, H. "Les restructurations bancaires en Europe: Les banques cooperatives," *Revue d'Economie Financiere*:78) 2005, pp 181-206.
- Kamat, G.S. "Public Sector Banking and Cooperative Banking in India," *Annals of Public and Cooperative Economics* (44:2) 2007, pp 159-163.
- Kanungo, S., Sadavarti, S., and Srinivas, Y. "Relating IT Strategy and Organizational Culture: An Empirical Study of Public Sector Units in India," *Journal of Strategic Information Systems* (10:1) 2001, pp 29-57.
- Keil, M., Tan, B.C.Y., Wei, K.K., Saarinen, T., Tuunainen, V.K., and Wassenaar, A. "A Cross-Cultural Study on Escalation of Commitment Behavior in Software Projects," *MIS Quarterly* (24:2) 2000, pp 299-325.
- Koetter, M., Nestmann, T., Stolz, S., and Wedow, M. "Structures and Trends in German Banking," Kiel Institute for World Economics, Kiel.
- Langley, A. "Strategies for Theorizing from Process Data," *Academy of Management Review* (24:4) 1999, pp 691-710.
- Leidner, D.E., and Kayworth, T. "Review: A Review of Culture in Information Systems Research: Toward a Theory of Information Technology Culture Conflict," *MIS Quarterly* (30:2), June 2006, pp 357-399.

- Livari, J., and Huisman, M. "The Relationship between Organizational Culture and the Deployment of Systems Development Methodologies," *MIS Quarterly* (31:1) 2007, pp 35-58.
- Lucas, H. *Why Information Systems Fail* Columbia University Press, New York, 1975.
- Markowitz, H. "Portfolio selection," *Journal of Finance* (7) 1952, pp 77-91.
- Martinsuo, M., and Lehtonen, P. "Role of single-project management in achieving portfolio management efficiency," *International Journal of Project Management* (25) 2007, pp 56-65.
- McFarlan, F.W. "Portfolio approach to information systems," *Harvard Business Review*:September-October) 1981, pp 142-150.
- Müller, R., Martinsuo, M., and Blomquist, T. "Project Portfolio Control and Portfolio Management Performance in Different Contexts," *Project Management Journal* (39:3) 2008, pp 28-42.
- Pettigrew, A.M. "On Studying Organizational Cultures," *Administrative Science Quarterly* (24:4) 1979, pp 570-581.
- Schein, E.H. *How Culture Forms, Develops and Changes* Jossey-Bass Inc., San Francisco, 1985.
- Shore, B. "Systematic Biases and Culture in Project Failures," *Project Management Journal* (39:4) 2008, pp 5-16.
- Strauss, A., and Corbin, J. *Basics of qualitative research: Grounded theory procedures and techniques*, London, 1990.
- Tan, B.C.Y., Smith, H.J., Keil, M., and Montealegre, R. "Reporting Bad News About Software Projects: Impact of Organizational Climate and Information Asymmetry in an Individualistic and a Collectivistic Culture," *IEEE Transactions on Engineering Management* (50:1) 2003, pp 64-77.
- Taylor, R.A. "Credit Unions and Cooperative Banking in Developed and Developing Countries," *Annals of Public and Cooperative Economics* (45:2) 2007, pp 105-118.
- Thorp, J. *The information paradox - realizing the business benefits of IT* McGraw-Hill, Toronto, 1999.
- Van Maanen, J., and Barley, S.R. *Cultural Organization: Fragments of a Theory* Sage Publications, London, 1985.
- Walsham, G. "Doing Interpretive Research," *European Journal of Information Systems* (15:3) 2006, pp 320-330.
- Warkentin, M., Moore, R., Beckkering, E., and Johnston, A. "Analysis of Systems Development Project Risks: An Integrative Framework," *The DATA BASE for Advances in Information Systems* (40:2) 2009, pp 8-27.
- Weill, P. "Don't Just Lead, Govern: How Top-Performing Firms Govern IT," *MIS Quarterly Executive* (3:1) 2004, pp 1-17.
- Weiß, M. *Organizational Design in the Banking Industry - A Comparative Institutional Analysis of the German Cooperative Banking Group* Shaker Verlag, Aachen, 2005.
- Yin, R. *Case Study Research - Design and Methods* Sage Publications, London, 1994.